

Title (en)

WEAR-RESISTANT STAINLESS CUTTING ELEMENT OF AN ELECTRIC SHAVER, ELECTRIC SHAVER

Title (de)

ABRIEBFESTES ROSTFREIES SCHNEIDELEMENT EINES ELEKTRISCHEN RASIERAPPARATS, EIN ELEKTRISCHER RASIERAPPARAT

Title (fr)

ELEMENT COUPANT INOXYDABLE ET RESISTANT A L'USURE DE RASOIR ELECTRIQUE, RASOIR ELECTRIQUE

Publication

EP 1530652 B1 20110427 (EN)

Application

EP 03784332 A 20030722

Priority

- EP 03784332 A 20030722
- EP 02078171 A 20020802
- IB 0303179 W 20030722

Abstract (en)

[origin: WO2004015159A2] Disclosed is a cutting element as used in an electric shaver. Said element is manufactured from maraging or precipitation-hardenable stainless steel with a surface hardened by plasma nitriding. The cutting element is plasma nitriding hardened on all surfaces of the blade, and a plasma nitriding hardened layer comprises a surface top layer of steel supersaturated with nitrogen and a diffusion layer adjoining the top layer with a hardness ranging from the hardness of the top layer to the hardness of the steel before hardening by means of plasma nitriding. Also disclosed is an electric shaver comprising at least one of the above cutting elements, as well as a method of manufacturing a cutting element.

IPC 8 full level

B26B 19/00 (2006.01); **C23C 8/00** (2006.01); **C23C 8/38** (2006.01)

CPC (source: EP US)

C23C 8/38 (2013.01 - EP US); **C23C 28/044** (2013.01 - EP US); **C23C 28/048** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004015159 A2 20040219; WO 2004015159 A3 20040812; AT E507318 T1 20110515; AU 2003247048 A1 20040225; AU 2003247048 A8 20040225; CN 100564574 C 20091202; CN 1675397 A 20050928; DE 60336904 D1 20110609; EP 1530652 A2 20050518; EP 1530652 B1 20110427; JP 2005534445 A 20051117; JP 4729305 B2 20110720; US 2005241159 A1 20051103

DOCDB simple family (application)

IB 0303179 W 20030722; AT 03784332 T 20030722; AU 2003247048 A 20030722; CN 03818624 A 20030722; DE 60336904 T 20030722; EP 03784332 A 20030722; JP 2004527140 A 20030722; US 52343105 A 20050128